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## Intro to Realist evaluation & research

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### On the menu

- Introduction to the principles of realist evaluation
- Some illustrations



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## Theory-driven inquiry

= A group of approaches that are driven by **theory** (and **not method**) and that focus on **mechanisms**

**Aim:** To learn 'whether an intervention **works, for whom, in which contexts and how**'

- Essential **information** for policymakers and programme managers
- Allows appraisal of **transferability** of an intervention
  - Different from black box evaluations that only assess whether a programme attained its intended results, not how and in which conditions



## Theory-driven inquiry

### 3 main schools

- **Theories of change**  
Connell, Kubisch, Schorr & Weiss (1995)
- **Theory-driven evaluation**  
Chen & Rossi (1987)  
aka theory-based evaluation, programme theory evaluation, programme theory-driven evaluation, etc.
- **Realist evaluation & Realist synthesis**  
Pawson & Tilley (1997)



## Realist evaluation

### Pawson and Tilley (1997)

In order to be useful for decision makers,  
evaluations need to indicate

*what works, for whom,  
in what circumstances,  
in what respects,  
over which duration,  
and why?*

rather than respond to '*does it work?*'

Realist **evaluation**

Realist **research**

Realist **synthesis**



**RE shares** emphasis on the use of **theory** with Theory-driven evaluation and Theories of change

- RE is **not method-driven**, but theory-driven
  - Driven by a hypothesis or an initial problem
  - Realist evaluation starts with a theory and ends with a (refined) theory
- Theory should in this case be understood as **middle-range theories** (Merton 1968)

*"theories that lie between the minor but necessary working hypotheses (...) and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change"*



### RE is different from the other schools of **theory-driven inquiry**

- Explicit **philosophical roots**
  - RE is based on **scientific realism**
    - Specific assumptions about
      - the nature of reality
      - the nature of knowing that reality
      - causation
      - attribution
  - Methodology
    - Heuristic: context, mechanism, outcome



### Principles of realist evaluation

#### (1) There is a reality independent of the observer

##### Realist ontological position

- The world exists independently of our knowledge of it (*realist ontology*)
  - The material but also the social world are 'real'
- Anything that has a real effect is real
  - Class, gender, power position, ...
  - Also policies, programmes, interventions, etc. are real
    - ... as well as social structure

Westhorp (2014)



## (2) Knowing reality through science is unavoidably relative to the researcher

### Weak relativist epistemological position

- Developing knowledge on reality
  - is unavoidably relative to the researcher
    - is constrained by cognition and is socially constructed
  - remains often incomplete
- But it is possible to move gradually closer to an understanding that better reflects the reality under study



## (3) All social systems are complex systems

- Programmes are **open** systems, embedded in and in constant interaction with the (social) systems in which they intervene
  - Choosing the boundaries of the study object may not be easy
  - **Context** matters
- Programmes are **dynamic** (while most evaluations are snapshots...)
- Observed outcomes are likely to be **multi-determined**
- Causation may be **non-linear**



#### (4) Perspective on causation is grounded in *generative causality*

##### Positivism

- Causation: successionist  

$$X \rightarrow Y \mid \text{certain conditions}$$
- Assumptions:
  - Only the observable exists
  - Observation / perception is unproblematic
  - We can only conceptualise 'causation' as a 'constant conjunction' (Hume)
  - Induction : from the particular to the universal
  - Understanding how effects are caused is not necessary to demonstrate causality



#### (4) Perspective on causation is grounded in *generative causality*

##### RE

- The world is differentiated and stratified, consisting of
  - observable and measurable events
  - +
  - structures, which have powers and liabilities capable of generating events
- These structures may be present even where they do not generate regular patterns of events

(Sayer 1992)



#### (4) Perspective on causation is grounded in *generative causality*

Table 1: Ontological assumptions of the critical realistic view of science (Bhaskar 1978).

	Domain of Real	Domain of Actual	Domain of Empirical
Mechanisms	X		
Events	X	X	
Experiences	X	X	X

**Causation** : a relationship between “the ‘**causal powers**’ of objects or relations (or their ways-of-acting of ‘mechanisms’) and the outcomes of those mechanisms

The ‘empirical’ is a subset of the ‘actual’  
The ‘actual’ is a subset of the ‘real’



#### (4) Perspective on causation is grounded in *generative causality*

##### RE

- **Actors** have a potential for change by their very nature
  - **Agency**: actors can produce change intentionally (or unintentionally)
- Actors and programmes are rooted in a **layered social reality**
  - Permanent interaction between agency and **structure** (Archer)
- **Causal mechanisms** reside in social relations and wider structural conditions as much as in individuals (structure - agency)



### (5) The search for 'mechanisms'

*Mechanisms = resources and/or the social or psychological drivers that influence the reasoning of actors (Pawson & Tilley)*

Mechanisms are activated **when the context conditions are right**

- Ex.: the effect of releasing a tennis ball
  - Different effect on tennis court, in a swimming pool or on the Moon (Westhorp 2014)



### (5) The search for 'mechanisms'

#### Mechanisms

- are underlying drivers of processes of change, which lead to outcomes **in specific conditions**
- play out at the level of **individuals, groups, organisations and society**
  - mechanisms can be found in psychological, social, cultural, political and economic theories
- are latent and mostly invisible

(Weiss 1997 and Astbury & Leeuw 2010)





### Example - A pay-for-performance scheme

#### Intervention

Remuneration tied to performance



#### Outcome

Increase in performance

#### Mechanism

Money is a motivator  
*People work harder if you pay  
 them in function of their  
 performance*



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### Example - A pay-for-performance scheme

#### Intervention

Remuneration tied to performance



#### Outcome

Increase in performance

→ Crowding out intrinsic  
 motivation

→ Gaming

#### Mechanism

*Extrinsic + intrinsic* motivation

#### Actors

Financial incentives work for  
 competent actors with strong extrinsic motivation  
 who aren't paid well

#### Context

Working conditions, organisational climate, societal expectations, etc.



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### (5) The search for 'mechanisms'

- P&T: Mechanisms generally involve **actors' reasoning** on the distribution of resources
  - The evaluator needs to identify
    - what resources, opportunities or constraints were actually provided and to whom
    - what 'reasoning' was prompted in response
    - what changes in behaviour resulted from this (or not)
    - what outcomes were ultimately achieved

→ **Programmes work differently for different people**



### (6) Context matters - a lot

#### **Context** conditions

- provide the **necessary conditions** for the mechanism that will be triggered
- have an influence on the **implementation** of the programme
- may have an effect on the observed **outcome**
- **include:** social, economic and political structures, social policies, organisational context, geography, historical context, etc.



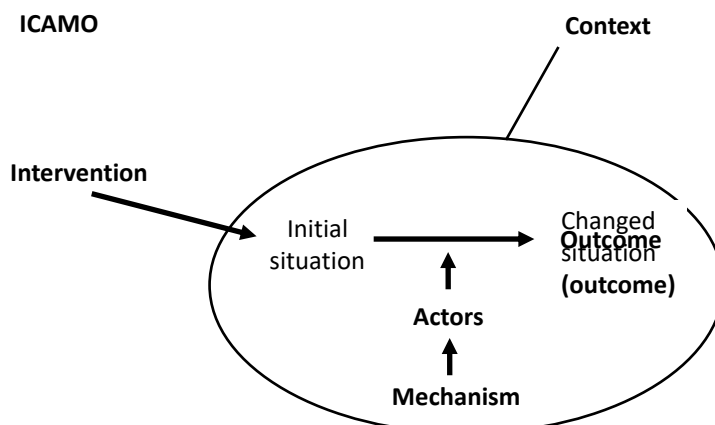
### (7) Analysis needs to reach depth

Realists propose a heuristic for analysis  
the Context-Mechanism-Outcome configuration



### The CMO configuration

Pawson & Tilley  
(1997)  
ICAMO



### (7) Analysis needs to reach depth

CMOs are not tables with lists of mechanisms, lists of context elements and lists of outcomes

→ **ICAMO configuration**

At the end of the study, ICAMOs are compared with the initial programme theory (**specification**)

Repeated studies lead to **accumulation** of insights and to a refined PT



### (7) Analysis needs to reach depth

Realist research is **method-neutral**

- methods need to provide the data required to help 'test' the initial programme theory in terms of
  - effectiveness  
*Did the programme achieve its goal?*
  - causal processes  
*How did the observed results come about, in which context, why and for whom?*



### (7) Analysis needs to reach depth

Patterns (or **demi-regularities**) of I - A - C - M = O occur

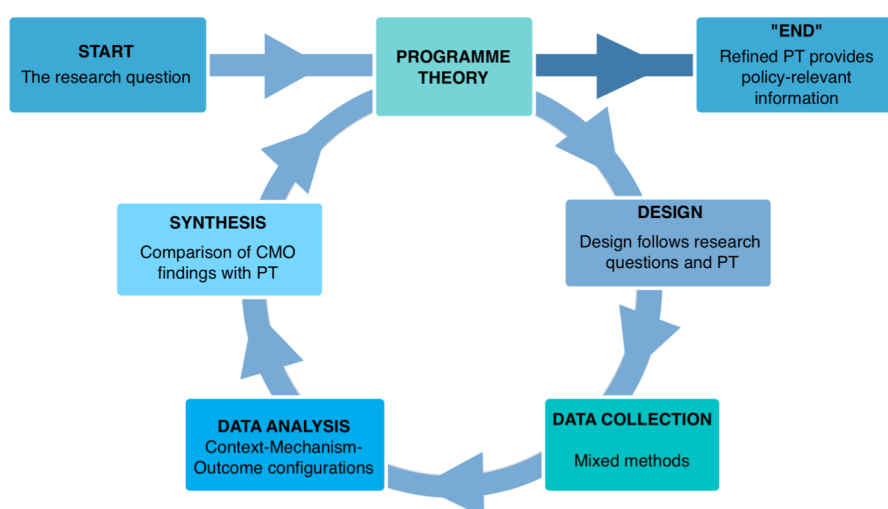
- Certain people tend to behave in certain ways in certain situations

**Retroduction** (cfr. Sherlock Holmes or 'backwards tracing')

- Theoretical explanation proceeds by 'DREI'
  - Start with **description** of significant outcomes
  - **Retroduction** to possible causal mechanisms
  - **Elimination** of alternatives
  - **Identification** of the generative mechanism(s)



### The RE cycle



Marchal, et al. 2012



**Example**

Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation.** *J Adv Nurs* 2005, **52**(4):362-371

ISSUES AND INNOVATIONS IN NURSING PRACTICE

### A realist study of the mechanisms of cardiac rehabilitation

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Accepted for publication 14 January 2005



Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation.** *J Adv Nurs* 2005, **52**(4):362-371

- **Cardiac rehabilitation (CR)** programmes offer a range of services that can support the secondary prevention of coronary heart disease (CHD)
  - supervised exercise programmes
  - components that address psychological wellbeing, smoking cessation and dietary change
- Concerns remain about the **effectiveness** of such programmes
  - considerable unexplained variation in the effectiveness of the programmes
- **Aim**
  - to explore patients' experiences of CR and perceptions of the mechanisms and contexts influencing its long-term effectiveness



Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation.** *J Adv Nurs* 2005, **52**(4):362-371

### Methodology

- **No preliminary PT** is presented by the authors
- **Design:** Qualitative study
- Setting: a relatively deprived region of the West of Scotland
- Data collection
  - **Focus groups** to elicit individuals' perspectives
  - RE used to structure data collection through the content of the focus group schedules and inform the analysis



Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation.** *J Adv Nurs* 2005, **52**(4):362-371

### Results

#### *Attending the CR sessions*

- CR is a **group activity**
  - For many, the group-based nature was seen as **disadvantageous** to their own interests
- Slowly, the group-based nature of the sessions came to be seen as a **advantage**
  - the feeling of all patients 'being in the same boat' gave people a sense of not being alone as they faced the seemingly similar challenges that lay ahead (**sense of collective identity**)



Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation.** *J Adv Nurs* 2005, **52**(4):362-371

## Results

### *Attending the CR sessions*

- The **atmosphere** was perceived to be friendly, encouraging and supportive (*context*)
- The **good relations** between the people attending (*intermediate outcome*) increased motivation to attend and fostered **mutual encouragement** (*mechanism*)



Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation.** *J Adv Nurs* 2005, **52**(4):362-371

## Results

### *Outcomes of the CR sessions*

- For some users, being in **close proximity** to other former cardiac patients at different stages in rehabilitation **demonstrated** not only that people with cardiac disease could progressively achieve high levels of fitness but that they personally could achieve this also

➔ **increased personal confidence** and **reduced fear**





Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation**. *J Adv Nurs* 2005, **52**(4):362-371

## Results

### *Outcomes of the CR sessions*

- For others : no subsequent improvements in health behaviours
- ➔ Explaining divergent observed outcomes
  - Developing an **embodied sense** of where their physical boundaries lay and **social factors** were central elements of the explanation of the processes through which CR was linked to a either positive or negative results



Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation**. *J Adv Nurs* 2005, **52**(4):362-371

## Analysis

- The importance of providing patients with **information** is often stressed
- This study: the main ways in which CR fostered change were not didactic but related to **social factors** and **embodiment**
  - The concept of **social capital**
    - the **social benefits of attending CR** can influence behavioural change through **increased motivation** but also counter other negative social factors linked to ill health, such as isolation and stress



Clark AM, Whelan HK, Barbour R, MacIntyre PD: **A realist study of the mechanisms of cardiac rehabilitation.** *J Adv Nurs* 2005, **52**(4):362-371

### Analysis

- **Embodiment**
  - Faith in the body and its ability to fulfill the physical demands of daily life were greatly undermined by a diagnosis of CHD
- **Context matters**
  - **A lack of perceived safety** for people with a CHD history was associated with a reluctance to exercise after completion of the CR programme



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